

N321 Care Plan # 3

Lakeview College of Nursing

Name Chloe Stalcup

Demographics (3 points)

Date of Admission 04/06/2021	Patient Initials K.R.	Age 56	Gender M
Race/Ethnicity White	Occupation Disabled	Marital Status Married (Separating)	Allergies NKDA
Code Status Full	Height 5'8"	Weight 240 lbs.	

Medical History (5 Points)

Past Medical History: COPD, past COVID 19 infection, HTN, T2DM, Hypercapnia, Hypoxia.

Past Surgical History: Pt. had tubes placed in his lungs to assist with his breathing. Placed January of 2020 in Peoria. Other than that he has never had other surgeries.

Family History: Pt. states all of his relatives are healthy without medical issues other than his brother and father which both have COPD.

Social History (tobacco/alcohol/drugs): Past tobacco used, 1.5 PPD for 35 years. No alcohol or other drug use.

Assistive Devices: None.

Living Situation: Lives alone.

Education Level: Education through the 11th grade

Admission Assessment

Chief Complaint (2 points): SOB, "I just couldn't get my breath".

History of present Illness (10 points): Pt was diagnosed with COPD "6-8 years ago". Since then he had contracted COVID 19 in January and has never fully recovered since. The patient reported the weather changes affected him more this year because of the COVID he had this winter. Pt. reports that the weather affects his COPD and any infection he has, even thrush of the mouth (from using inhalers). Pt reports the shortness of breath is constant but is especially bad

when walking or moving around, stairs are a very hard task for him. Pt. states that he was provided care for his COPD in Pekin, IL prior to care here. The patient states that his SOB makes him more tired than he would usually be and the characteristics of his SOB include a “feeling like I have to just gasp for air, It’s a scary feeling because I can’t breathe”. Relieving factors of his COPD include leaning on the bedside table and avoiding exercise or any extensive movement. The patient was treated prior with tubes in his lungs in Pekin, IL and was admitted at IMH in January due to COVID and COPD complications. Pt states the he has stayed in a hospital about 6 times since being diagnosed for his COPD.

Primary Diagnosis

Primary Diagnosis on Admission (2 points): COPD

Secondary Diagnosis (if applicable): Pneumonia

Pathophysiology of the Disease, APA format (20 points):

Chronic Obstructive Pulmonary Disease (COPD)

COPD is the third leading reason of death in the United States; it is also a prevalent cause of disability in the U.S. (Capriotti, 2020). COPD is what left 56-year-old K.R. disabled and unable to work. COPD is best noted as a combination of emphysema, chronic bronchitis, and hyperactive airway disease. The play of emphysema in COPD is the overfilling of alveoli, creating an impaired ability to expel carbon dioxide from the lungs. Chronic bronchitis plays a role in the mucus production of COPD patients. This excessive amount of mucus in the airway creates an impaired inspiratory flow of oxygen, leading to hypoxia and cyanosis in COPD patients (Capriotti, 2020).

COPD affects the entire body by decreasing the amount of oxygen and increasing the body's retention of carbon dioxide. Various signs can be observed by this and symptoms of

COPD, which include: dyspnea upon exertion, productive cough, clubbed fingernails, JVD, barrel chest, and ankle edema (Capriotti, 2020). The evidence of COPD can be observed in patient K.R. by his clubbed fingers due to long-term hypoxia, the use of accessory muscles, and a barrel chest. The patient also hunches over on his bedside table while sitting up, which is a common observable characteristic in COPD patients. As for lab diagnostics related to COPD, the patient has an abnormally high C-Reactive protein level (blood test to measure inflammation). This lab test's abnormality supports the presence of inflammation from COPD. In patient K.R., there are also increased levels of lactic acid. This lactic acidosis may be related to the increased use of accessory muscles and his overall inability to expel CO₂ and supply his body with enough oxygen. The patient also has an increased CO₂ level of 30, which indicates hypercapnia, common in COPD patients. COPD patients also have a lower oxygen saturation than regular patients. K.R. saturates a 96 while on 3 L's of oxygen.

Diagnostic tests used to diagnose COPD include the COPD assessment test (CAT), which assesses the level of SOB and dyspnea (Capriotti, 2020). A CBC, chemistry panel, chest x-ray, ECG, and ABG's are also used to assess retention of CO₂, oxygen levels, acid/base problems and assess the physical effects of the disease (Capriotti, 2020). Patient K.R. had a CBC, chem panel, and chest x-ray to assess his COPD. The patient's current treatment includes an extensive med list that includes Budesonide nebs, corticosteroids, antihistamines, expectorants, and antibiotics to treat possible pneumonia. Patient K.R. is also awaiting a double lung transplant to treat his disease better.

Pathophysiology References (2) (APA):

Capriotti, T. (2020). *Davis advantage for pathophysiology: Introductory concepts and clinical perspectives*. F.A. Davis.

COPD. (2020, April 15). Retrieved April 11, 2021, from <https://www.mayoclinic.org/diseases-conditions/copd/symptoms-causes/syc-20353679>

Laboratory Data (15 points)

CBC **Highlight All Abnormal Labs**—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab	Normal Range	Admission Value	Today's Value	Reason for Abnormal Value
RBC	4.40-5.80	5.68		
Hgb	13-16.5	12.6		Low HgB is related to hypoxia from COPD exacerbation (Pagna, 2018).
Hct	38-50%	42.6		
Platelets	140-440	360		
WBC	4-12	16.00		Increased WBC is related to the clients inflammation from COPD and possible pneumonia found on chest X-ray (Pagna, 2018)
Neutrophils	40-60%	76.1		Increased neutrophils are related to an increase of stress from COPD exacerbation and possible infection from pneumonia found on chest X-ray (Pagna, 2018).
Lymphocytes	20-40%	22.6		
Monocytes	0.2-1.0	0.8		
Eosinophils	1-4%	1.3		
Bands	0-4%	N/A		

Chemistry **Highlight All Abnormal Labs**—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab	Normal Range	Admission Value	Today's Value	Reason For Abnormal
Na-	133-144	146		Increased Na ⁺ is related to a dietary intake of Na ⁺ (Pagna, 2018).
K+	3.5-5	2.8		Hypokalemia is observed during corticosteroid use (Pagna, 2018).
Cl-	98-107	102		

CO2	22-28	30		This increased CO2 is related to decreased expiration of CO2 from COPD (Pagna, 2018).
Glucose	70-99	236		The patient has elevated blood sugar due to steroid use and T2DM (Pagna, 2018).
BUN	7-25	18		
Creatinine	0.50-1.20	1.22		This increase in creatinine is related to the extensive list of antibiotics (Vanc, Azithromycin, etc.) that the pt. is on (Pagna, 2018).
Albumin	3.5-5.3	5.2		
Calcium	8.8-10.2	8.9		
Mag	1.6-2.6	N/A		
Phosphate	2.5-4.5	N/A		
Bilirubin	<0.5	0.2		
Alk Phos	39-104	73		
AST	13-39	21		
ALT	7-52	13		
Amylase	23-85	N/A		
Lipase	0-160	N/A		
Lactic Acid	0.5-1	1.3		An increase in lactic acid is related to COPD and accessory muscle use (Pagna, 2018).

Other Tests **Highlight All Abnormal Labs**—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab Test	Normal	Value on	Today's	Reason for Abnormal
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	Range	Admission	Value	
INR	0.8-1.2			
PT	10-14 secs			
PTT	30-45 sec			
D-Dimer	<0.5			
BNP	<100			
HDL	<200			
LDL	>60			
Cholesterol	<200			
Triglycerides	<140			
Hgb A1c	<6.5			
TSH	0.4-4.0			

Urinalysis **Highlight All Abnormal Labs**—Explanations must be in complete sentences and contain in-text citations in APA format.

Lab Test	Normal Range	Value on Admission	Today's Value	Reason for Abnormal
Color & Clarity	Yellow/clear			
pH	5.0-9.0			
Specific Gravity	WNL			
Glucose	Neg			
Protein	Neg			
Ketones	Neg			
WBC	Neg			
RBC	Neg			
Leukoesterase	Neg			

Cultures **Highlight All Abnormal Labs**—Explanations must be in complete sentences and contain in-text citations in APA format.

Test	Normal Range	Value on Admission	Today's Value	Explanation of Findings
Urine Culture	N/A			
Blood Culture	N/A			
Sputum Culture	N/A			
Stool Culture	N/A			

Lab Correlations Reference (1) (APA):

Pagana, K. D., & Pagana, T. J. (2018). *Mosby's manual of diagnostic and laboratory tests* (7th ed.). Elsevier.

Diagnostic Imaging

All Other Diagnostic Tests (5 points):

- Chest X-ray, Right and Left Lower Lobes. Showed RLL collapse and filling defect(Per chart; pt. may have a blood clot/D-Dimer negative). Chest X-ray also showed diffuse pulmonary infiltrates in RLL (pneumonia).

Diagnostic Test Correlation (5 points):

- These diagnostic findings are related to the patient’s recent increase in SOB. The RLL difuse pulmonary infiltrates are indicative of pneumonia.

Diagnostic Test Reference (1) (APA):

Mayo Clinic. (2018, March 13). *Pneumonia: diagnosis and treatment*.

<https://www.mayoclinic.org/diseases-conditions/pneumonia/diagnosis-treatment/drc-20354210>

Current Medications (10 points, 1 point per completed med)

10 different medications must be completed

Home Medications (5 required)

Brand/ Generic	Alendronate/ Fosamax	Azithromy cin/ Zithromax	Sulfamethox azole trimethopri m/ Bactrim	Fluconazole / Diflucan	Hydrochlorothi azide/ Microzide
Dose	70 mg tablet	500 mg tablet	160 mg tablet	100 mg tablet	25 mg
Frequency	Once per week	Three times a week (Mon, Wed, Fri)	Three times a week (Mon, Wed, Fri)	Three times a week (Mon, Wed, Fri)	QD
Route	Oral	Oral	Oral	Oral	Oral
Classificatio n	Antiosteopor otics/ Bisphosphon ates	Antibiotics / Macrolide s	Antibiotic/ Sulfonamide	Antifungal/ Triazoles	Diuretics/ Thiazides
Mechanism of Action	Suppresses osteoclasts, allowing for more bone formation and a gain in bone mass.	Binds to bacterial ribosomes, blocking protein synthesis and killing the bacteria.	Decreases bacterial folic acid synthesis; killing bacteria.	Inhibits fungal synthesis and growth.	Increases sodium and H2O excretion by inhibiting reabsorption in the kidneys.
Reason Client Taking	Chronic steroid use which decreases bone mass.	Bacterial infection of the lungs.	Bacterial infection of the lungs.	Thrush of the mouth from steroid use.	HTN
Contraindica tions (2)	Pt.'s that cant stand or sit upright for 30 minutes Pt.'s with upper GI problems.	Avoid use in patients with hepatic dysfunctio ns. Avoid in patients with severe lung	Avoid use in patients with allergy to sulfonamide s. Contraindic ated in infants younger than 2.	Avoid use in patients with a hypersensiti vity. Avoid use in patients with allergy to other antifungal - zole's.	Avoid in pt.'s with anuria. Use caution in patients with renal disease.

		conditions like pneumonia.			
Side Effects/ Adverse Reactions (2)	Headache Abdominal pain.	Angioedema Melena	Seizures Pancreatitis	Diarrhea Dizziness	Pancreatitis Leukopenia.
Nursing Considerations (2)	Correct hypocalcemia before therapy starts. People with a Vitamin D deficiency may require a Vitamin D supplement.	Monitor for superinfection. Monitor for further hepatic dysfunction (jaundice/ abdominal pain/ labs).	Monitor renal function through labs. Watch for S&S of superinfection.	Monitor for hepatotoxicity. Use with caution in patients with renal problems.	Monitor I&O. Monitor BP/vitals/ electrolyte levels.

Hospital Medications (5 required)

Brand/ Generic	Ceftriaxone sodium/ Rocephin	Clonidine/ Catapres	Guaifenesin/ Mucinex	Montelukast/ Singulair	Xarelto/ Rivaroxaban
Dose	2 g's	0.2 mg tablet	1200 mg tablet	10 mg tablet	15 mg
Frequency	QD	QD	Q12H	QD	Q12H
Route	IV drip in 0.9% NaCl	Oral	Oral	Oral	Oral
Classification	Antibiotics/ 3rd generation cephalosporins.	Antihypertensive/ Alpha Agonist	Glyceryl guaiacolate/ Expectorant	Leukotriene receptor antagonist/ Antiallergen/ Antiasthmatic	Factor Xa inhibitor/ Anticoagulant
Mechanism of Action	Inhibits cell wall	Unknown. Thought to	Increases volume of	Reduces airway	Blocks factor Xa,

	synthesis.	stimulate the central vasomotor center and decrease outflow of the heart, and PV system.	mucus in resp. tract by lubricating it; reducing adhesion to nasal surfaces.	edema, smooth muscle contraction, and decreases asthma inflammatory process.	impairing blood coagulation.
Reason Client Taking	Bacterial infection of the lung/ Pneumonia	HTN	Mucus from chronic bronchitis.	Seasonal allergies and to decrease inflammation in pt.'s bronchial airways.	Treat blood clot in lung and DVT in leg.
Contraindications (2)	Don't use in patient with allergy to cephalosporins or penicillins. Use cautiously in patients with renal insufficiency.	Epidural form is contraindicated in patients on blood thinners. Use with caution in patients with coronary insufficiency.	Hypersensitivity No other listed.	Not for acute asthma attacks Hepatic disease patients	Active bleeding Hypersensitivity
Side Effects/Adverse Reactions (2)	Leukopenia Anaphylaxis	Bradycardia Dizziness	Dizziness Headache	Seizures, Anaphylaxis	Hemorrhage Angioedema
Nursing Considerations (2)	Monitor for superinfection. Monitor PT/INR for patients with impaired vitamin K synthesis.	Not for patients with hypersensitivity. Not for patients that are poor metabolizers.	Tell patient to not break or chew med. Advise pt. to not take for longer than 1 week.	Monitor pt. for cardiac and pulmonary symptoms . Monitor pt. for suicidal thoughts or increased	Shouldn't be given to patients with creatinine clearance less than 30. Monitor for risk of bleeding.

				depression with use.	
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Medications Reference (1) (APA):

Nurse's drug handbook. (2020). Jones & Bartlett Learning.

Assessment

Physical Exam (18 points)

<p>GENERAL (1 point): Alertness: Patient is alert and engaging in conversation. Orientation: Oriented to time, place, person and current events. Distress: Patient shows no signs of distress. Overall appearance: Well groomed. Patients appearance is older for his age.</p>	
<p>INTEGUMENTARY (2 points): Skin color: Normal for race. Character: Normal Temperature: Warm and dry. Turgor: Rapid rebound Rashes: None Bruises: Bruises on forearms, chest, and shins. Wounds: None. Braden Score: 22 Drains present: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Type:</p>	
<p>HEENT (1 point): Head/Neck: Head and neck is symmetrical, trachea midline, no thyroid megaly, no lymph nodes noted. Ears: Pearly grey tympanic membrane. Auricles normal. Eyes: PERRLA. Nose: Septum midline, turbinate's pink and moist. Teeth: Good dentition.</p>	

<p>CARDIOVASCULAR (2 points): Heart sounds: S1, S2 noted. NSR, no murmurs or gallops. S1, S2, S3, S4, murmur etc. Cardiac rhythm (if applicable): Peripheral Pulses: 2+ bilaterally Capillary refill: rapid, less than 3 seconds. Neck Vein Distention: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Edema Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Location of Edema:</p>	
<p>RESPIRATORY (2 points): Accessory muscle use: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Breath Sounds: Location, character Breath sounds diminished. Wheezes and crackles at the bases of the lungs noted.</p>	
<p>GASTROINTESTINAL (2 points): Diet at home: Regular Current Diet: Regular Height: 5'8" Weight: 240 lbs. Auscultation Bowel sounds: Normoactive Last BM: 04/08/2021 Palpation: Pain, Mass etc.: N/A Inspection: Distention: N/A Incisions: Scars: Near the anterior base of the lungs bilaterally. Drains: Mucus drain in R/L lung per Jan 2020. Wounds: N/A Ostomy: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Nasogastric: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Size: Feeding tubes/PEG tube Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Type:</p>	
<p>GENITOURINARY (2 Points): Color: Normal Character: Normal Quantity of urine: 300 mL Pain with urination: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Dialysis: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Inspection of genitals: Normal</p>	

<p>Catheter: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Type: Size:</p>	
<p>MUSCULOSKELETAL (2 points): Neurovascular status: Awake and alert. ROM: Full ROM Supportive devices: N/A Strength: Strong grips/pushes and pulls. ADL Assistance: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Fall Risk: Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Fall Score: 20; low Activity/Mobility Status: Patient is up and active. Gets winded with strenuous activity. Independent (up ad lib) <input checked="" type="checkbox"/> Needs assistance with equipment <input type="checkbox"/> Needs support to stand and walk <input type="checkbox"/></p>	
<p>NEUROLOGICAL (2 points): MAEW: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> PERLA: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> Strength Equal: Y <input checked="" type="checkbox"/> N <input type="checkbox"/> if no - Legs <input type="checkbox"/> Arms <input type="checkbox"/> Both <input type="checkbox"/> Orientation: Orientated to time, place, date, and current events. Mental Status: Intact. Speech: Clear, well spoken. Sensory: Intact. LOC: Awake, responding to conversation.</p>	
<p>PSYCHOSOCIAL/CULTURAL (2 points): Coping method(s): Woodworking/hobbies. Developmental level: Normal for age. Religion & what it means to pt.: Christian, not active. Personal/Family Data (Think about home environment, family structure, and available family support): Currently going through a divorce. Has two children and four grandchildren he is close with.</p>	

Vital Signs, 2 sets (5 points)

Time	Pulse	B/P	Resp Rate	Temp	Oxygen
0645	88	114/69	22	98.6	98% (3 L's)
1100	91	120/72	26	98.4	96% (3 L's)

Pain Assessment, 2 sets (2 points)

Time	Scale	Location	Severity	Characteristics	Interventions
0645	Numeric	-	0- Declines pain	-	-
1100	Numeric	-	0- Declines pain	-	-

IV Assessment (2 Points)

IV Assessment	Fluid Type/Rate or Saline Lock
Size of IV: 20 g Location of IV: Right antecubital/forearm Date on IV: 04/07/2021 Patency of IV: Blood return, flushes/infuses easily. Signs of erythema, drainage, etc.: No signs of erythema or drainage. IV dressing assessment: Site clean, dry, intact.	

Intake and Output (2 points)

Intake (in mL)	Output (in mL)
360 mL H2O	300 mL urine (clear/light yellow)

Nursing Care

Summary of Care (2 points)

Overview of care: Patient is on 3L of oxygen with an O2 sat of 96%. Patient was educated on his new Xarelto medication, given his last Moderna vaccination, and administered his daily meds.

Procedures/testing done: Chest x-ray, ABG's, CBC, chem labs.

Complaints/Issues: SOB

Vital signs (stable/unstable): Stable. O2 sat has improved upon admission by 4%.

Tolerating diet, activity, etc.: Patient is tolerating his diet well; K.R. still becomes short of breath upon exertion and respirations increased with movement.

Physician notifications: N/A

Future plans for patient: Patient will be discharged to his home. Patient plans on getting a lung transplant.

Discharge Planning (2 points)

Discharge location: Home

Home health needs (if applicable): Home oxygen.

Equipment needs (if applicable): Oxygen tank.

Follow up plan: Patient will continue care under pulmonologist in Peoria, IL.

Education needs: Patient needs home oxygen safety, medication education, and at home neb education.

Nursing Diagnosis (15 points)

Must be NANDA approved nursing diagnosis and listed in order of priority

Nursing Diagnosis	Rational	Intervention (2 per dx)	Evaluation
<ul style="list-style-type: none"> • Include full nursing 	<ul style="list-style-type: none"> • Explain why the nursing 		<ul style="list-style-type: none"> • How did the patient/family

<p>diagnosis with “related to” and “as evidenced by” components</p>	<p>diagnosis was chosen</p>		<p>respond to the nurse’s actions? <ul style="list-style-type: none"> Client response, status of goals and outcomes, modifications to plan. </p>
<p>1. Ineffective airway clearance related to COPD as evidenced by statement of SOB, increased respirations , and use of accessory muscles.</p>	<p>Patient presented to IMH with the chief complaint of SOB due to his COPD exacerbation. Effective oxygen exchange is one of the most important part of keeping a patient alive.</p>	<p>1. Assist the patient in raising the HOB or leaning over a table to optimize breathing. 2. Encourage pursed lip breathing.</p>	<p>Patient was able to find an optimal position by leaning over the table to increase air clearance. Patient was also able to engage in purse lip breathing; respirations were lowered, and oxygen saturation rose.</p>
<p>2. Impaired gas exchange in relation to alveoli destruction as evidenced by dyspnea on exertion, SOB, increased respirations .</p>	<p>Proper gas exchange of oxygen in and the expiration of CO2 is imperative in maintaining a proper oxygen saturation.</p>	<p>1. Administer humidified oxygen as ordered. 2. Administer nebulizers as ordered and encourage expectoration of secretions .</p>	<p>Patient implemented humidified oxygen and nebulizers as ordered and gas exchange improved as evidence by an improved oxygen saturation.</p>
<p>3. Deficient knowledge related to lack of information as evidenced by the inability to name important precautions</p>	<p>Adequate knowledge is imperative in managing COPD and may help the patient avoid exacerbations.</p>	<p>1. Instruct the client to engage in breathing exercises such as diaphragmatic breathing. 2. Educate the patient on the importance of</p>	<p>The patient was able to recall and demonstrate diaphragmatic breathing; patient was also able to get his flu and pneumonia shot.</p>

and exersizes that are necessary in COPD.		getting a pneumonia and flu shot each year.	
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Other References (APA):

Nursing diagnosis for copd. (n.d.). Retrieved April 11, 2021, from
<http://www.nandanursingdiagnosislist.org/nursing-diagnosis-for-copd/>

Concept Map (20 Points):

Subjective Data

SOB
"I just couldn't get my breath"
SOB on exertion
Patient has trouble walking up stairs and grocery shopping by himself.
Patient says the change of seasons affects his COPD.
Patient states his COPD has been worse since getting COVID.

Nursing Diagnosis/Outcomes

Ineffective airway clearance related to COPD as evidenced by statement of SOB, increased respirations, and use of accessory muscles.
Patients' rests on the side table to help w/ breathing. Pursed lip breathing.
Impaired gas exchange in relation to alveoli destruction as evidenced by dyspnea on exertion, SOB, increased respirations.
Humidified oxygen (3L's); nebulizers
Deficient knowledge related to lack of information as evidenced by the inability to name important precautions and exercise's that are necessary in COPD.
Patient engages in diaphragmatic breathing; patient gets flu shot and pneumonia shot.

Objective Data

Hyperuricemia
Hypercapnia
Increased HgB, WBC, Neutrophils.
Use of accessory muscles.
Clubbed fingers.
Increased respirations on exertion/movement.

Patient Information

K.R. 56 Y/O male
COPD
T1DM
Lives alone.

Nursing Interventions

Patient is educated on Xarelto (new med).
Patient is educated on positioning to best support gas exchange.
Patient is taught purse lip breathing and diaphragmatic breathing.
Patient is give his flu/pneumonia shot.
Patient is on 3 L's on oxygen.
Patient is given nebulizers.
Patient was administered nebs/steroids/and expectorants.



